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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FERGUSON, MARISSA L

ART UNIT PAPER NUMBER

2854

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,467

Applicant(s)

MITCHELL, CHAUNCEY T.

Examiner

Marissa L Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 14-22 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/14/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the back surface being pre-printed in a pattern must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4,6,7,17,19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fabel (US 5,863,372) in view of Connor Sledge et al. (US 6,368,689).

Regarding claims 1,6,7 and 17, Fabel teaches a web (10) being divisible along lines of perforation that extend between two edges (14) and center (262) of the web and contain a pattern of ties (Figure 1), a printer (24) that prints information on the divisible sections of the web and a feed path (Figure 2) along which the divisible sections of the web are advanced in sequence through the printer to a position at which the lines of perforation can be individually burst (26,60) by a tensile force. However, he does not explicitly disclose applying a force along a length of the web starting by rupturing the weaker ties at the center of the web and proceeding to rupture the ties at the two edges of the web, in which ties are weaker at a center the web than at either of the two edges, also in which the ties located adjacent to the center are narrower than the ties at the edges and at least 20% weaker.

Connor Sledge et al. teaches a web with varying perforation profiles forming lines of weakness near the center (36, Abstract) causing the web to burst

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at the center of the web and then proceeds to rupture at the edges of the web (see element 54 and perforated longitudinal line located to the left of element 40 and perforated longitudinal line located to the right of 37, also see figure 3 located below) where the ties are stronger.

It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify the invention as taught by Fabel to include a weak centerline and strong edges as taught by Conner Sledge et al., since Conner Sledge et al. teaches that it is efficient to provide stronger edges for reducing overall perforation defects with centerflow.

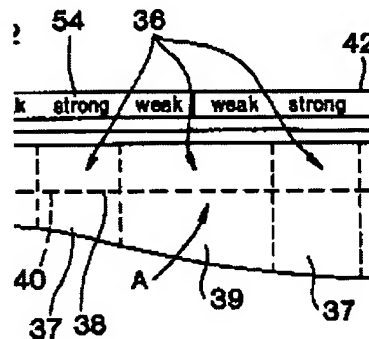


FIG. 3

Regarding claims 7 and 20, Connor Sledge et al. teaches weak ties, however he does not specifically teach ties 20% weaker. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been obvious to have ties that are 20% weaker, since such

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modification would result in the ties rupturing before other ties so that web can be properly broken along the perforated lines.

Regarding claim 4, Fabel teaches a web including front and back surfaces, the front surface being printed with information from the printer (24) and the back surface being pre-printed in a pattern repeated on the divisible sections of the web (Figure 1).

Regarding claim 19, Connor Sledge et al. teaches that the ties that are located adjacent to the center of the web are narrower than the ties located adjacent to the edges of the web along the lines of perforation.

3. Claims 2,3 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fabel (US 5,863,372) in view of Connor Sledge et al. (US 6,368,689) as applied to claim 1 above, further in view of Kopp et al. (US 5,428,433).

Regarding claims 2, Fabel and Connor Sledge et al. both teach the invention and method claimed with the exception of a printer that applies a braking force that prevents subsequent sections of the web from being prematurely dispensed through the printer. Kopp et al. discloses a printer with reel paper that teaches a printer with a paper brake force (31). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to further modify the invention as taught by Fabel to include a paper brake as taught by Kopp et al., since Kopp et al. provides a brake for tautly wrapping paper around a roller.

Regarding claim 3, Fabel teaches force applied along the

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length of the web initially stresses both the ties located at the center of the web as well as the ties located at the two edges of the web (Column 3, Lines 51-63).

The claimed feature also is an inherent feature.

Regarding claims 14-16, Fabel and Connor Sledge et al. both teach the invention and method claimed with the exception cutting spaced lines of perforations along the web. Kopp et al. discloses a cutting station used for cutting a reel of paper (Column 14, Lines 47-50). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to further modify the invention as taught by Fabel to include a cutting device as taught by Kopp et al., since Kopp et al. teaches that is advantageous to provide a cutter to ensure efficient cutting in the required locations.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fabel (US 5,863,372) in view of Connor Sledge et al. (US 6,368,689) as applied to claim 1 above, further in view of Nagamoto (US 5,763,354).

Fabel and Connor Sledge et al. both teach the invention claimed with the exception of a thermal printer and the front surface of the web includes a thermosensitive coating. Nagamoto teaches a thermal printhead (Column 17, Lines 4-7) that provides a thermosensitive (Column 6, Lines 12-21 and Column 13, Lines 7-9) coating on a perforated recording material. It would have been obvious at the time the invention was made to a person of ordinary skill in the art to further modify the invention as taught by Fabel to include a thermal printer and thermosensitive coating as taught by Nagamoto, since Nagamoto teaches

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that it is advantageous to provide a layer that becomes adhesive when activation.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fabel (US 5,863,372) in view of Connor Sledge et al. (US 6, 368,689) as applied to claims 1-7 and 14-17 above, further in view of Kopp et al. (US 5,428,433).

Regarding claim 18, Fabel and Connor Sledge et al. both teach the invention and method claimed with the exception of a printer that applies a braking force that prevents subsequent sections of the web from being prematurely dispensed through the printer. Kopp et al. discloses a printer with reel paper that teaches a printer with a paper brake force (31). It would have been obvious at the time the invention was made to a person of ordinary skill in the art to further modify the invention as taught by Fabel to include a paper brake as taught by Kopp et al., since Kopp et al. provides a brake for tautly wrapping paper around a roller.

6. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fabel (US 5,863,372) in view of Connor Sledge et al. (US 6,368,689) as applied to claims 1-7 and 14-20 above, in view Jones (US Patent 5,562,964).

Regarding claim 21, Fabel and Conner Sledge et al. teaches the invention except for ties that occupy a larger portion of the lines of perforation adjacent to the edges of the web than adjacent to the centerline of the web sufficient to relatively increase resistance to tearing along the lines of perforation starting

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near either of the two edges while relatively decreasing resistance to tearing along the same lines of perforation starting near the centerline of the web. Jones teaches perforated rolled paper with longer perforations located at the edge of the paper (Column 4, Lines 1-7).

It would have been obvious at the time the invention was made to a person of ordinary skill in the art to further modify the invention as taught by Fabel to include larger perforations at the edges as taught by Jones, since Jones allows the user to easily start a tear in the sheet at the perforated line and reduces the number of "ears" left on the roll, resulting from detaching.

Regarding claim 22, Fabel teaches a web of print media that is arranged as a fan-folded stack (20) prior to advancing the succession of sheets along the feed path (Figure 2).

Allowable Subject Matter

DC 7. Claims 8-10^{u r c} objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 11-13 are allowed.

Reasons for Allowance

9. The following is an examiner's statement of reasons for allowance: regarding claim 8, the prior art does not teach or render obvious a first of the a first of the tensile forces being applicable through a position offset from the centerline for tearing the lines of perforation starting at one edge of the web

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and proceeding through the center to the other edge of the web, a second of the tensile forces being applicable through a position aligned with the centerline for bursting the lines of perforation starting at the center of the web and proceeding to both edges of the web and the first and second tensile forces being made more nearly equal by the pattern of ties that are weaker next to the center of the web than next to either of the two edges .

10. Regarding claim 11, the prior art does not teach or render obvious breaking ties located along the line of perforation separating the one sheet from the remaining portion of the web starting with ties located adjacent to the centerline and proceeding to ties located adjacent to the edges of the web for dispensing the one sheet of print media from the printer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L Ferguson whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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